The Visitors Sportfishing Survey - 1982

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ABSTRACT

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The 1982 visitors sportfishing survey obtained information about the sportfishing activities of visitors to B.C. There were about 71,000 licenced visiting anglers in 1982. Most of these anglers came from other provinces, usually Alberta, or the United States. Only 34% of the visiting anglers came to B.C. primarily to fish.

Visiting anglers fished a total of 377,000 angler days and caught 291,000 salmon. At the same time, they made expenditures which had a considerable impact on the Canadian economy. Non-resident tidal sportfishing expenditures totalled $14 million in 1982, and generated 301 jobs and $4 million in income.

Visitor sportfishing has direct and indirect benefits for Canadians. The direct benefits consist of the fun and excitement that visiting Canadians receive from sportfishing, valued at between 2.5 and 3.2 million dollars, and the revenue from licence sales, $659,000. The indirect benefits of sportfishing consist of the profits, taxes and wages generated by the sportfishing related expenditures of non-Canadian anglers. These amount to $2.0 million. Combining direct and indirect benefits, the total value to Canadians of non-resident sportfishing was between 5.2 and 5.7 million dollars in 1982.

RÉSUMÉ

L'enquête susmentionnée fournit de l'information sur les activités des pêcheurs sportifs qui ont visité la Colombie-Britannique en 1982. Environ 71 000 pêcheurs à la ligne titulaires de permis ont séjourné dans la province durant cette année. La plupart d'entre eux venaient d'autres provinces, habituellement de l'Alberta, ou encore des États-Unis. Seulement 34 % y sont allés principalement pour pêcher.

Leurs activités totalisent 377,000 jours de pêche à la ligne au cours desquels ils ont pris 291,000 saumons. Ils ont dépensé des sommes qui ont eu une incidence considérable sur l'économie canadienne. Les dépenses des pêcheurs sportifs en eaux de marée non résidants se sont élevées à $14 millions en 1982 et ont entraîné la création de 301 emplois, représentant $4 millions en revenus.

Les pêcheurs sportifs de l'extérieur présentent des avantages directs et indirects pour les Canadiens. Parmi les avantages directs, citons le plaisir et la joie que les Canadiens en visite retirent de la pêche sportive, laquelle est estimée valoir entre 2.5 et 3.2 millions de dolars, et les revenus provenant de la vente des permis, soit $659,000. Les avantages indirects de la pêche sportive comprennent les profits, les taxes et les salaires provenant des dépenses effectuées part les pêcheurs à la ligne étrangers. Celles-ci se chiffrent à $2 millions. Si l'on tient compte des avantages directs et indirects, on estime que la valeur totale de la pêche sportive des non résidants s'est située entre 5.2 et 5.7 millions de dollars en 1982.

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1. Introduction

The visitors sport fishing survey is part of a database which contains information on sport fishing in British Columbia. It complements the Tidal Diary Program, which provides data on the fishing activity of resident anglers. The survey was sent out to a random sample of 2346 licenced tidal anglers who reside in other provinces or territories in Canada or in the United States. Anglers were asked questions about their fishing trip(s) to British Columbia during which they fished in tidal waters, including catch and effort data and information on trip expenditures (See Appendix A for a copy of the questionnaire). There was a useable response rate of 69% to the 1982 questionnaire. The results of the questionnaire and an analysis of the value of visitor sportfishing based on those results are reported here.

2. Non-Resident Anglers

2.1 The tourist as angler

Tourism is British Columbia's third major industry. During 1979, an estimated 6.45 million persons visited the province. Of an estimated 2.37 million parties visiting the province in 1979, 33% came from Alberta, 14% from other Canadian provinces, 18% from Washington, 11% from California, 18% from other states of the U.S.A. and 6% from overseas. A total of 11.9% of all visitor parties fished in fresh or salt water during their stay while 3.6% of parties indicated fishing as the most important activity of their visit.

2.2 Visiting anglers

All anglers aged 16 and over require a licence to fish in B.C. tidal waters for any finfish. This has been a requirement since 1981. For the purposes of licencing, non-residents are defined as non-Canadians. Non-Canadian anglers are charged higher fees than Canadians. Table 2.1 presents the current schedule of fees and the number of licences sold in each category in 1981 and 1982.

Table 2.1

Sportfishing Licence sales

	Fee	Number Sold in 1981	Number Sold in 1982
Resident Annual	$5.00	228,127	242,293
Non-Resident Annual	$20.00	19,340	17,779
Non-Resident 3-day	$10.00	12,832	12,622
Res./Non-Res 1-day	$3.50	21,948	20,967
		282,247	293,661

It is estimated that 9.67% of all resident annual licences are held by Canadians who are not residents of B.C. These anglers are considered visitors for the purpose of this study. In addition, 82.1% of the one day licences were sold to anglers who are not residents of B.C. Visitors made up 25% of the licenced anglers in B.C. tidal waters with Canadians accounting for 28,651 of the visitor licences sold and non-Canadians 42,404, for a total of 71,055 licences.

Information from the licence sample provides some basic data on the origin and age distribution of anglers. The overwhelming majority of out-of-province Canadian tidal anglers come from Alberta and most non-Canadian tidal sport fishermen come from Washington, Oregon and California. The origin of visiting fishermen is summarized in Table 1.2. In addition, 3% of all visiting sport fishermen come from overseas. Of the overseas anglers, 44% come from the United Kingdom, 30% from Continental Europe and 10% from Japan.

Table 2.2

Origin of Visiting Anglers

American		Canadian	
State of Residence	% of all American Visiting Anglers	Province of Residence	% of all Canadian Visiting Anglers
Washington	47.5	Alberta	68.8%
Oregon	9.8	Saskatchewan	5.4
California	22.6	Manitoba	5.6
Idaho	2.3	Ontario	15.7
Montana	.5	Quebec	3.0
Other	17.3	Yukon and N.W.T.	.7
	100.0	Maritimes	.8
			100.0

The licence also provides information on the age of the angler. The age distribution of visiting anglers and B.C. resident anglers is shown in Table 2.3. Visiting anglers are older than resident anglers. This is most probably a function of higher incomes and more leisure time available to tourists as opposed to local residents.

Table 2.3

Age Distribution of Visiting Tidal Anglers and B.C. Resident Anglers

	Visitors	B.C. Residents
15-25*	7%	14%
25-35	16	25
35-45	20	23
45-55	22	16
55-65	22	14
65 and over	13	8
	100%	100%

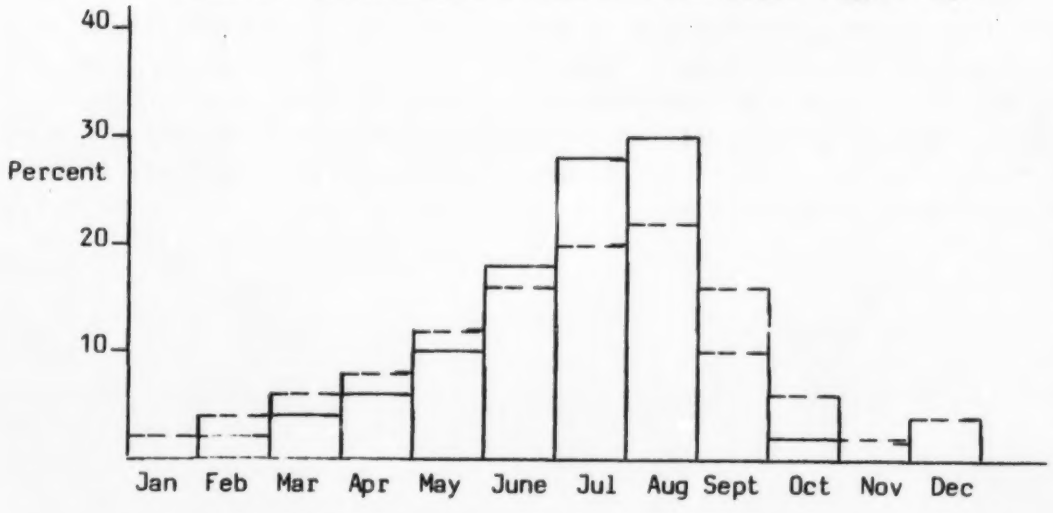
* Note: anglers under 16 do not require a licence.

2.3 Seasonal pattern of Visitor fishing

The seasonal pattern of angler visits to B.C. is shown in Figure 2.1. Also shown is the proportion of resident angler days in each month. While the majority of angler effort takes place in June, July and August, the figure shows, not surprisingly, that visitor activity is more concentrated in these summer months.

Figure 2.1

Seasonal Distribution of Visits and Resident Angler Days



——— percent of visits in each month
– – – – percent of resident angler days in each month.

2.4 Reasons for coming to British Columbia

Visiting anglers were asked about their reasons for coming to this province. The choices and their responses were given as follows:

Visiting friends and relatives	17.4%
Fishing	34.7%
Business	4.3%
General Vacation	32.4%
Other	11.2%
	100.0%

Fishing was cited as the main reason for coming to B.C. for 34.7% of the respondents. If there were no tidal sport fishing available in B.C., 55.7% of the respondents would still have come to the province and 36.2% indicated they would not have come.

Anglers were also asked to comment on their fishing experiences in B.C. tidal waters. Most of those respondents who commented on the quality of the fishery stated that fishing was poor, compared to previous years. On the other hand, many respondents made favourable comments about their visit. There were a number of specific complaints about red tide warnings, commercial fishing activities, and licence cost. Several participants would have liked to have published a fishing guide which provided more information on sport fishing in B.C. A summary of these comments is provided in Appendix B.

Table 5.2

Impact of Non-Resident Tidal Sport Fishing Expenditures on Employment

	Employment Impact (person-years)		
Expenditure Category:	Canadian Visitors Expenditures	Non-Canadian Visitors Expenditures	Total
Lodging, Trailer park fees	24	34	58
Packages, guide services	13	21	34
Food	33	47	80
Travel costs	35	27	62
Boat rentals	13	8	21
Fishing supplies, bait	7	9	16
Household owned boat costs	4	14	18
Fish processing	1	2	3
Other	5	4	9
Total	135	166	301

Table 5.3

Impact of Non-Resident Tidal Sport Fishing Expenditures on Income

	Income Generated		
Expenditure Category	by Canadian Visitor Expenditure	by Non-Canadian Visitor Expenditure	Total Income Generated
Lodging, Trailer park fees	$ 382,742	$ 534,457	$ 917,199
Packages, guide services	229,447	402,168	631,615
Food	545,384	784,811	1,330,195
Travel costs	170,018	129,431	299,449
Boat rentals	193,436	126,261	319,697
Fishing supplies, bait	98,571	114,993	213,564
Household owned boat costs	79,980	280,291	360,271
Fish processing	15,637	29,249	44,886
Other	80,598	60,163	140,761
Total	$ 1,795,813	$ 2,461,824	$ 4,257,637

3. Visitor Fishing Activity in B.C. Tidal Waters

The majority (86%) of anglers surveyed made one trip to B.C. in 1982 during which they fished in tidal waters. Only 9% made two trips and less than 3% made more than three trips to the province during which they fished. The average length of stay was seven days and the average number of days fishing per visit was three. For anglers who made more than one trip to B.C. the average length of stay declined with each subsequent visit, however, the average days fished did not decline.

It is likely that the existence of the one day and three day licences has an effect on the average number of days fished. Twenty-four percent of all visiting anglers buy one day licences and 18 percent buy three day licences. Increasing the term of the three day licence would likely increase the average number of days fished.

3.1 Distribution of visitor fishing effort

Visitors fished a total of 376,558 angler days in British Columbia in 1982. Visiting Canadians accounted for 126,644 angler days and non-Canadians 249,914 angler-days.

Certain areas are exceedingly popular with visiting anglers. In all, 37.6% of survey respondents fished around the Campbell River area (stat area 13), 12% reported having fished near Nanaimo (stat area 17), 12% in the Gulf Islands/Saanich Inlet area (stat area 18) and 8 to 10% in each of the Sunshine Coast (area 16), Desolation Sound (area 15) and Port Alberni (area 23) areas. The percentage of anglers visiting each area does not add up to one hundred because 32% of all visiting anglers fished in two areas and 12% of all visiting anglers fished in thee areas. Table 3.1 shows the number and percentage of anglers reporting fishing in each statistical area. Figure 3.1 shows a map of the Department of Fisheries statistical areas.

6. Summary

The 1982 visitors sportfishing survey obtained information about the sportfishing activities of visitors to B.C. There were about 71,000 licenced visiting anglers in 1982. Most of these anglers came from other provinces, usually Alberta, or the United States. Only 34% of the visiting anglers came to B.C. primarily to fish.

Visiting anglers fished a total of 377,000 angler days and caught 291,000 salmon. At the same time, they made expenditures which had a considerable impact on the Canadian economy. Non-resident tidal sportfishing expenditures totalled $14 million in 1982, and generated 301 jobs and $4 million in income.

Visitor sportfishing has direct and indirect benefits for Canadians. The direct benefits consist of the fun and excitement that visiting Canadians receive from sportfishing, valued at between 2.5 and 3.2 million dollars, and the revenue from licence sales, $659,000. The indirect benefits of sportfishing consist of the profits, taxes and wages generated by the sportfishing related expenditures of non-Canadian anglers. These amount to $2.0 million. Combining direct and indirect benefits, the total value to Canadians of non-resident sportfishing was between 5.2 and 5.7 million dollars in 1982.

Table 3.1

Distribution of Visitor fishing effort

Stat Area	No. of anglers reporting fishing	% of Total anglers	Stat Area	No. of anglers reporting fishing	% of Total anglers
1	5	.4%	15	112	8.3%
2	12	.9	16	131	9.7
3	14	1.0	17	173	12.8
4	8	.6	18	167	12.4
5	3	.2	19	138	10.2
6	12	.9	20	44	3.3
7	12	.9	21	9	.7
8	45	3.3	23	123	9.1
9	54	4.0	24	12	.9
10	5	.4	25	9	.7
11	3	.2	26	3	.2
12	126	9.3	27	6	.4
13	508	37.6	28	33	2.4
14	136	10.1	29	51	3.8

3.2 Boat Types for Visitor Fishing Effort

Over 90% of the total tidal waters sportfishing effort takes place from boats. About 61% of all visiting anglers fish from their own or a friend's boat. The remainder of visitors fish from a rented boat, charter boats or boats included in a sport fishing package. The percentage of visiting anglers in each type of boat category is shown in Table 3.2

Table 3.2

Boat Types for Visitor Sportfishing Effort

Description of Boat	Visiting Canadians %	Visiting Americans %	Total %
Own Boat	10.9	35.9	27.1
Friends Boat	46.8	27.5	34.2
Rental Boat	12.5	11.9	12.1
Charter Boat	25.3	17.6	20.3
Package Trip	4.5	7.1	6.2
	100.0%	100.0%	100.0%

Figure 3.1

GOVERNMENT OF CANADA
FISHERIES AND OCEANS
STATISTICAL MAP
DIXON ENTRANCE
GRAHAM ISLAND
HECATE STRAIT
2 WEST
2 EAST
30
STRAIT OF GEORGIA
STRAIT OF JUAN DE FUCA

The most interesting point to note about this data is American visitors are far more likely to bring their own boat to B.C. Fully 35.9 percent of visiting Americans fished from their own boat. This reflects both boats trailered to B.C. and boats which sail to the province. Canadian visitors are most likely to fish from a friend's boat. Rental boats, charters or package trips were used by about 38 percent of all visiting anglers with Canadian visitors somewhat more likely to use these services than Americans.

3.3 Visiting angler's reported catch

Visiting anglers participating in the survey were asked to report on their catch for the year. Table 3.2 shows the estimated total coastwide catch and effort by species for Canadian visitors, non-Canadian visitors and all visitors.

Table 3.3

Visitor Catch and Effort Estimates

	Visiting Canadians	Non-Canadian	Total Visitors
Days Fishing	126,644	249,914	376,558
Fish Kept			
Chinook	24,336	55,919	80,255
Coho	58,708	122,837	181,545
Other salmon	11,440	17,801	29,241
Other finfish	30,056	112,545	142,601
Crabs	15,433	48,145	63,578
Clams	38,905	130,125	169,030
Other shellfish	23,203	96,556	119,759

Visitors caught a total of 291,000 salmon compared to 682,100 salmon caught by residents of B.C. (Bijsterveld and Moore, 1984.) for a total estimated coastwide sport catch of salmon of 973,100. It is interesting to note that, while visitors made up 25% of total anglers, they caught 30% of the fish. Another way of looking at this is to compare the average catch per angler day by residents and by different types of visitors. Table 3.4 gives this comparison. Visitors have a higher catch per angler day than residents. However, the difference is almost totally accounted for by the fact that those who stated their purpose for coming to B.C. was fishing have a much higher per day catch than their counterparts who gave other reasons for visiting B.C. This difference could be explained by assuming that those who travel purposely to fish are better fishermen or may be more likely to hire guide or charter services. As indicated in Table 3.4, those

visitors who hire guide or charter services have a much higher catch per angler day than those who fish on their own.

Table 3.4

Comparisons of Catch per Angler Day of Species

	Chinook	Coho	All Salmon
Residents of B.C.	.16	.35	.55
All visitors	.21	.48	.77
Visiting Canadians	.19	.46	.75
main reason: visiting	.17	.39	.65
fishing	.22	.56	.88
Visiting Non-Canadians	.22	.49	.79
main reason: visiting	.13	.36	.56
fishing	.33	.64	1.04
Visiting Canadians	.19	.46	.75
those chartering	.33	.65	1.09
those not chartering	.16	.42	.66
Visiting Non-Canadians	.22	.49	.79
those chartering	.42	.59	1.11
those not chartering	.19	.48	.64

4. Economic Value of Recreational Fishing by Visitors

In order to manage the fisheries resource in a manner that will yield the greatest benefits to Canadians, the net benefit or economic value derived from competing uses of the resource must be evaluated. Generally, resource use results in a product which is sold and therefore has a market price. With market prices it is possible to calculate the net economic gain from different resource uses and compare them on that basis. However, recreational fishing is not marketed or sold in the manner of other goods and services. Thus there is no market price or value attached to a unit of recreational fishing such as an angler day. This is not to say that recreational fishing has no value. What it does mean is that the value of recreational fishing must be derived from indirect evidence.

Two kinds of values, or benefits, accrue to society from recreational fishing activity; primary or direct benefits and secondary benefits. Primary benefits include the direct benefits (e.g. fun, excitement) that anglers receive from

sportfishing. Where there is no or minimal charge for sportfishing, this direct benefit is captured by the angler. This unpaid-for benefit is relevant only when the anglers are among the people in whose interests the resource is being managed. In the case of tidal sportfishing, the resource is managed for all Canadians. The economic value of sportfishing must include the benefits derived by residents of Canada from sportfishing but exclude unpaid-for recreation enjoyment of non-residents. Another primary benefit from sportfishing is licence fees. To the extent that sportfishing benefits are paid for, the amount spent must be included as a primary benefit. Thus all licence fees are included as primary benefits.

The other category of benefits of recreational fishing, secondary benefits, refers to the economic gain Canadians derive from anglers' spending on goods and services associated with sportfishing. Secondary benefits are measured by estimating the total amount of spending generated by fishing activity, and subtracting from this the economic cost of providing those goods and services purchased, to yield a measure of net benefit. Expenditures which would still have been made in Canada in the absence of sportfishing opportunities are not counted as part of the secondary benefits of the sportfishery.

The following two sections give details on how both primary and secondary benefits from visitor sportfishing in B.C. tidal waters are calculated.

4.1 Primary Benefits of Visitor Recreational Fishing

The primary or direct benefit of recreational fishing, over and above what anglers currently pay to go fishing, is estimated to average approximately $20 to $25 per angler day. Angler days are defined as any day during which an individual goes fishing regardless of the time spent fishing. This estimate is essentially based on sportfishing values derived from the 1981 Survey of Freshwater Angling in B.C. which was done by the Fish and Wildlife Branch of the B.C. Ministry of Environment. The survey indicated that the primary benefit per angler day in an average B.C. lake in 1981 was about $20. A $5 upwards allowance has been made to account for the fact that other surveys indicate angling for salmon in salt water is generally more highly valued than angling in fresh water (Canadian Resourcecon Ltd. 1982.)

Given an estimated value per angler day of $20 to $25, the total benefit to Canadian visiting anglers from their sportfishing experiences is between 2.5 and 3.2 million dollars. Although American visiting anglers also receive benefits from their sportfishing experience over and above what they pay to go sportfishing, these benefits are not included in our analysis, because they do not represent benefits to Canadians.

The other aspect of primary benefits is licence fees. Table 4.1 details the types of licences sold to visiting anglers, the unit cost and total revenue derived. The total value of visitors' licence fees was $659,199 in 1982.

Table 4.1

Licence Type	1982 sales	Fee	Revenue
Resident Annual	$23,430	$5.00	$117,150
Non-Resident Annual	17,779	20.00	355,580
Non-Resident 3 day	12,622	10.00	126,220
One Day	17,214	3.50	60,249
Total	$71,045		$659,199

Combining the two aspects of primary or direct value of visitor recreational fishing results in a total primary value of between 3.2 and 3.9 million dollars.

4.2 Secondary Benefits of Visitor Recreational Fishing

In order to calculate the net secondary benefits from sportfishing activity it is first necessary to determine the total amount of visitor spending done in Canada because of the availability of sportfishing. Expenditures by anglers which would still be made in Canada, even in the absence of sportfishing opportunities, must not be included. For this reason the expenditures of visiting Canadians are not included as secondary benefits. It is reasonable to assume that visiting Canadian anglers would have spent their money elsewhere in the economy, thus no change in net benefits to the Canadian economy would occur. In addition, the majority of expenses incurred by non-Canadian visiting anglers, whose main purpose in coming to B.C. was not fishing, would have been incurred in Canada even if there were no sportfishing available. Thus, only direct fishing expenses (tackle, charters, boat repair, etc.) of those non-Canadian visitors coming for reasons other than fishing are included as gross secondary benefits. All expenditures of non-Canadian visiting anglers, whose main purpose for coming to B.C. was for tidal sportfishing, are included as gross benefits. Table 4.2 shows the total 1982 expenditures by visiting non-Canadian anglers that are attributable to sportfishing. These expenditures are the measure of gross secondary benefits to Canada of visitor sportfishing. The net benefit, or economic value, is the difference between the expenditure by visiting anglers on goods and services and the cost of providing anglers with those services. These benefits include profits and taxes, both direct and indirect. Also, in an economy where there is a significant unemployed labour force, wages and salaries are also a benefit.

Table 4.2

Total Expenditures by Non-Canadians Attributable to Sport Fishing in 1982

Package Charter	$ 804,082
Lodging	413,748
Trailer Parks	76,299
Food - restaurant	326,939
- groceries	139,374
B.C. Travel - car	135,375
- air	199,715
- ferry	102,797
- other	83,490
Boat rentals	342,172
Fishing supplies	239,683
Bait	71,108
Boat cost - gas	687,689
- repairs	106,085
- moorage	149,666
- other	46,988
Guide or charter	514,498
Fish processing	56,795
Other	43,319
Total	$4,539,822

The indirect benefits of visiting anglers' expenditures were calculated using Statistics Canada's 1981 Corporate Financial Statistics (cat no. 61-207). It is possible to derive profits, wages, and taxes, both direct and indirect, as a proportion of gross sales from these statistics. The breakdown of the various expenditure categories into industry groupings is shown in Table 4.3. This breakdown is based on the Statistics Canada Standard Industrial Classification (1960). Table 4.4 shows the percentage of gross sales which is allocated to each of the categories of indirect benefits: wages, taxes, and profits. It should be noted that gross sales do not include sales tax.

Table 4.3
Classification of Expenditures Into Industry Groupings

Grouping	Expenditure Category	Expenditures
Water transportation	Package charters	$804,082
	Ferry travel	102,797
	Moorage	149,666
Total water transportation		$1,056,545
Air transportation	Air travel	$199,715
Gasoline service stations	Car travel	$135,375
	Boat cost - gas	687,689
Total gasoline service stations		$823,064
Food stores	Food - groceries	$139,375
Hotels and restaurants	Lodging	$413,748
	Trailer parks	76,299
	Food-restaurant	326,939
Total hotels and restaurants		$816,986
Other services	Guides	$514,498
	Boat rentals	342,172
	Boat cost - repairs	106,085
	- other	46,988
	Fishing processing	56,795
Total other services		$1,066,538
Retail trade	Fishing supplies	$239,683
	bait	71,108
Total retail trade		$310,791

Table 4.4
Indirect benefits as a Percentage of Gross Sales (1981)

Grouping	Indirect benefit			
	Profits	Direct Taxes	Indirect Taxes	Wages and Salaries
Water transportation	7.1%	3.0%	.3%	30.0%
Air transportation	1.1%	.8%	.4%	26.7%
Gasoline service stations	1.6%	.8%	.3%	10.9%
Food stores	1.2%	.7%	.2%	10.6%
Hotels	3.2%	2.0%	1.9%	32.5%
Other services	7.8%	4.9%	1.3%	56.4%
Total retail trade	3.3%	.7%	.4%	12.5%

Table 4.5
Indirect Benefits of Visiting Anglers' Expenditures

Grouping	Benefits (in 1982 dollars)				
	Profits	Direct Taxes	Indirect Taxes	Wages and Salaries	Total
Water transportation	$75,015	$31,696	$3,170	$316,964	$426,845
Air transportation	2,197	1,598	799	53,324	57,918
Gasoline service stations	11,194	5,597	2,099	76,257	95,147
Food stores	11,549	6,737	1,925	102,019	122,230
Hotels and restaurants	25,346	15,841	15,049	257,420	313,656
Other services	82,208	51,643	13,701	594,426	741,373
Total retail trade	9,641	2,045	1,169	36,518	49,373
Total	$217,150	$115,157	$37,912	$1,436,928	$1,807,147

Table 4.5 shows the indirect benefits of visiting angler expenditures, as calculated on the basis of gross sales. It does not include revenues generated from provincial sales tax, accommodation tax, and provincial and federal gasoline taxes. Sales tax and accommodation taxes were 6% in 1982. Gasoline tax averaged

about 6.4¢ per litre which represents about 15% of gross revenue on gasoline sales. Federal revenue from the manufacturers tax on gasoline are 11% of the refinery gate price. This is calculated as 11% of the materials cost for the gasoline service stations. The revenues from these taxes are shown in Table 4.6.

Table 4.6
Other Tax Revenues

Tax	Rate	Revenues
Retail sales tax	6%	$31,240
Accommodation tax	6%	24,825
Gasoline tax (Prov.)	15%	123,456
Gasoline tax (Fed.)	11%	62,290
Total	11%	$241,811

The total indirect benefits from visitor sportfishing are $2.05 million dollars. This works out to $8.20 per angler day for all non-Canadian visiting anglers. The major component of indirect benefits is wages and salaries, at $1.44 million. Taxes comprise $0.39 million of the indirect benefits, with profits accounting for the remaining $0.22 million. It is important to note that, if there was low unemployment, wages and salaries would not be included as indirect benefits, because the people hired to produce the goods and services consumed by visiting anglers could have been employed elsewhere in the economy.

5. Impacts of Non-resident Sport Fishing Expenditures

Sportfishing expenditures have impacts on both local economies and the Canadian economy as a whole. When anglers visit a community, they demand goods and services. To meet this new demand, local firms hire more people, creating more jobs. With higher employment, more people are receiving incomes, and there is an additional increase in demand causing another increase in employment and incomes. This process, known as the "multiplier effect", continues until the increased demand is too diffused to be noticeable.

The increased employment and income resulting from the multiplier affects of angler expenditures are not included in the benefits to Canadians of non-resident sportfishing. Including them, without considering the third order costs of visitor sportfishing, would result in a distorted estimate of benefits. The increase in income and employment due to non-resident sportfishing should be seen as an estimate of sportfishing's economic importance.

The total expenditures by visiting anglers in British Columbia are estimated to have been $14 million in 1982. Of these expenditures, $6 million are attributable to visiting Canadians and $8 million are attributable to non-Canadians. The average expenditure, however, was higher for Canadian visiting anglers than for non-Canadians. Expenditures were $215 and $183 per licensed visiting angler for Canadians and non-Canadians respectively. Table 5.1 details total expenditures by type of spending.

From the expenditure data shown in Table 5.1, it is possible to calculate the impact of non-resident sportfishing expenditures on income and employment. Income impacts are shown in Table 5.2, and employment impacts are shown in Table 5.3. These impacts were calculated using employment and income coefficients developed by Edwin, Reid, and Associates in a 1980 survey of businesses offering services related to B.C. tidal sportfishing. The coefficients have been adjusted for inflation where appropriate using the Canadian consumer price index. These coefficients have been found to yield income and employment estimates similar to those produced by the Statistics Canada inter-regional input-output model.

Expenditures of Canadian visitors generated 1.8 million dollars of income and 135 person years of employment in 1982. Expenditures of visitors from other countries generated 2.5 million dollars of income and 155 person-years of employment. The total economic impact of non-resident sportfishing in 1982 was 4.3 million dollars in income and 290 person years of employment.

Table 5.1

Estimated Total Expenditures by Visiting Anglers in British Columbia in 1982

	Visiting Canadians	Non-Canadians	Total
Charter packages	$ 414,959	$ 804,083	$ 1,219,044
Lodging	861,857	1,128,863	1,990,720
Trailer park	102,229	217,377	319,606
Food - restaurant	931,548	1,286,055	2,217,603
- groceries	336,787	539,088	875,875
B.C. Travel - car	852,549	534,710	1,387,259
- air	536,293	300,397	836,690
- ferry	207,049	329,236	536,285
- other	252,127	242,513	494,640
Boat rentals	524,218	342,172	866,390
Fishing supplies	206,979	239,683	446,662
Bait	59,429	71,108	130,537
Boat cost - gas	141,025	687,689	828,714
- repairs	89,912	106,085	195,997
- moorage	45,200	149,666	194,866
- other	6,479	46,988	53,467
Guide or charter	337,327	514,499	851,826
Fish processing	30,363	56,795	87,158
Other	234,981	175,403	410,384
Total	$ 6,171,311	$ 7,772,410	$ 13,943,721

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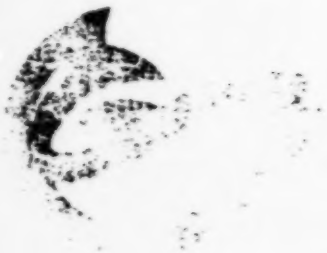
APPENDIX A

Government of Canada / Gouvernement du Canada
Fisheries and Oceans / Pêches et Océans



Visitor Sportfishing Survey

Canada

1. How many visits to British Columbia have you made in this licence year (Jan. 1983-Mar. 1984) which included fishing in B.C. Tidal waters?

_____ visit(s)

2. For each visit, please indicate:

- the number of people in your party
- the number of B.C. Tidal waters licence holders in your party
- the number of people fishing in your party aged 15 or under
- the total number of days spent in B.C. for each visit.

	People in party	Tidal waters Licence holders in party	Anglers aged 15 or under in party	Days spent in B.C.
Visit 1				
Visit 2				
Visit 3				
Visit 4				
Visit 5				

3. What was your main reason for coming to British Columbia? (Please check one only)

☐ Visiting friends and relatives ☐ General vacation

☐ Fishing ☐ Other _____

☐ Business _____

4. Please indicate how your decision to come to B.C. was affected by the availability of Tidal Waters sport fishing (please check one only)

If there were no Tidal sportfishing available in B.C.:

☐ I would still have visited B.C. and substituted other activities.

☐ I would still have visited but would not have stayed as long (I would have stayed _____ days less).

☐ I would not have come at all.

5. Using a scale of 1 to 5, please indicate the importance of each of the following factors in your choice of a place to go fishing by placing the appropriate number in the box.

1 of no importance
2 of some importance
3 important
4 very important
5 extremely important

☐ natural or scenic beauty of the area

☐ accompanying friends

☐ number of fish you expect to catch

☐ size of fish you expect to catch

☐ getting away from crowds

☐ ease of access (marinas, boat-ramps)

☐ availability of services (hotels, restaurants, etc.)

☐ other (specify) _____

6. Please fill in the following table, even if you and your party caught no fish. Instructions for filling out the table are given below.

MONTH	AREA	DAYS	NO. OF PEOPLE	CHINOOK	COHO	OTHER SALMON	OTHER FISH		SHELLFISH	
							number	type	number	type
August	13	4	3	6	3	1	2	lingcod		
August	14	3	3	4	5	2			3	crab

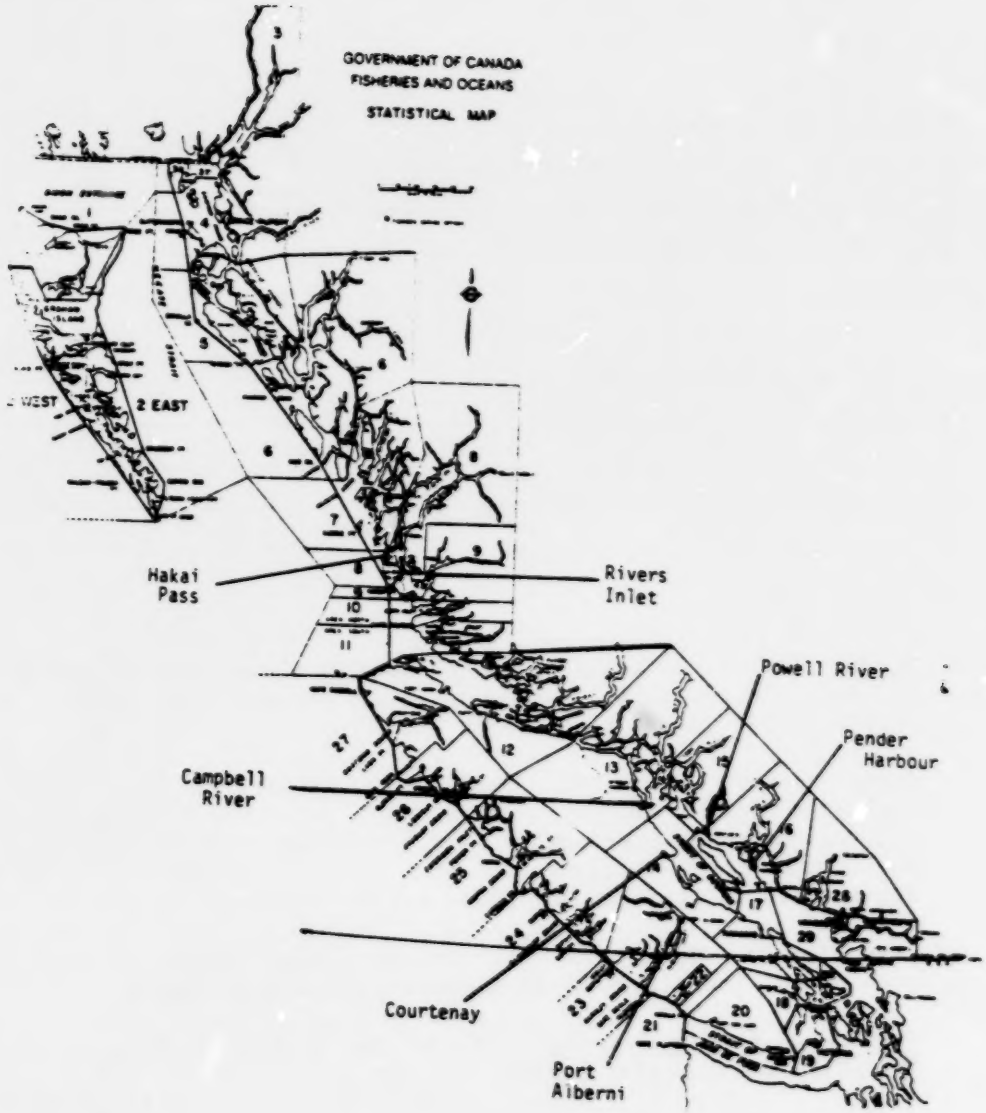
Month: Record the month(s) you personally fished in B.C. Tidal waters in the 1983 licence year (Jan. 1983 through Mar. 1984). Please indicate "84" if the month is in 1984.

Area: Refer to the enclosed map of Fisheries statistical areas (opposite page), locate the area where you were fishing, and record the corresponding area number. If you fished in more than one area in the month, use a separate line for each area fished, and record the appropriate information for those areas on separate lines.

Days Fished: Record the days you personally fished in each area in each month, **including the days where nothing was caught.**

Number of People Fishing: Record the number of people, including yourself, who actually fished.

Catch: In the appropriate column, record the total number of fish caught by the fishing party (do not include fish that are released).


GOVERNMENT OF CANADA
FISHERIES AND OCEANS
STATISTICAL MAP
2 EAST
Hakai Pass
Rivers Inlet
Powell River
Pender Harbour
Campbell River
Courtenay
Port Alberni

7. Did you purchase any "package" sportfishing trips, tours or outings to fish in B.C. Tidal waters in 1983 (for example, fly-in fishing camps or charter services where the price included transportation, lodging, food, tackle, bait, etc.)?

☐ yes ☐ no

If yes, what was the total price of the package? $_____

8. Excluding package trips, please estimate below the amount of money your party spent in B.C. on trips that included sportfishing in the 1983 licence year (Jan. 1983-Mar. 1984):

1.	Lodging (hotel, motel, cottage rental, etc.)	$_____
2.	Trailer Park (campground fees)	$_____
3.	Food - restaurant meals & snacks	$_____
	- groceries	$_____
	- alcoholic beverages	$_____
4.	Travel Costs within B.C. - car	$_____
	- air	$_____
	- ferry	$_____
	- other	$_____
5.	Boat Rentals	$_____
6.	Fishing Supplies (tackle, clothing, etc.)	$_____
7.	Bait	$_____
8.	Household owned boat cost - gas	$_____
	- repairs	$_____
	- moorage	$_____
	- other	$_____
9.	Guide or Charter services (not included in question 9 on package trips)	$_____
10.	Fish processing (canning, smoking, etc.)	$_____
11.	Other (Specify)	$_____

9. How did you find out about Tidal sportfishing in B.C.

☐ travel agent
☐ friends or relatives
☐ magazine advertising
☐ local advertising while visiting B.C.
☐ other _____

10. How many trips have you made to B.C. in the last five years that included Tidal water sport fishing?

_____ trip(s)

11. Are you intending to fish in British Columbia Tidal waters again before the end of the current licence year (March 31, 1984)?

☐ Yes ☐ No

12. Will you return to fish in British Columbia Tidal waters in future years?

☐ Yes ☐ No ☐ Uncertain

13. Did you also purchase a B.C. provincial freshwater fishing licence during 1983?

☐ Yes ☐ No

14. Please feel free to comment on your fishing experience in B.C. Tidal waters and indicate how it could have been improved.

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX B

VISITOR SPORTFISHING SURVEY

Summary to Part 3 - Question # 12: Please feel free to comment on your fishing experience in B.C. Tidal Waters and indicate how it could have been improved.

Fishing: Good - 69 commented on good fishing.
Fair - 43 felt the fishing was fair.
Poor - 244 stated that fishing was poor, compared to previous years.

- 8 surveys stated that catch limits were too low, and that they should be increased.

- 5 participants felt that perhaps catch limits were too high, and that they should be decreased.

- 9 questionnaires stated that limits should be enforced; there should be greater control over the limits.

- Another suggestion was that nets should be restricted.

- Two participants felt the regulation requiring Chinooks under 18 inches to be returned to the water, should be changed due to the rough handling of the fishermen. The fish would die anyways.

- 3 people felt 'no fishing' should be enforced for 1 or 2 years to allow salmon to increase in number, and build up a good stock.

- Some participants felt there should be a ban on treble hooks.

- 10 people felt that tidal water should be cleaned up. Some felt this was the reason for constant Red Tide Warnings.

Red Tide: 35 participants felt negative toward Red-Tide warnings.

- Some participants felt warnings were vague. Fisheries should have clear postings.

- Participants also felt Red-Tide areas should be tested regularly and only posted if necessary.

Commercial Boats and Trollers: 44 participants were against commercial boats and trollers fishing in the same area as sportfishermen.

- They felt waters were overfished due to commercial vessels.

- Many participants felt the commercial fishermen were inconsiderate towards sportfishermen.

- One suggestion made by participants is to designate certain areas for sportfishing and certain areas for commercial fishermen.

- Another suggestion was to restrict commercial fishermen from the area between Vancouver Island and the Coast.

Guides and Charter Boats: There were 28 positive comments on Guides and Charter Boats. 12 people responded negatively.

- Positive responses were toward the helpful guides and well organized charter boats.

- The negative responses referred to the inexperience of some guides. Charter boats were poorly equipped, and the tackle was breaking down.

- A couple of participants commented on the lack of Charter Boats in some areas.

License System: 3 people preferred the individual licensing system.
13 were against individual licensing, and preferred boat licensing.

- The participants against individual licensing prefer boat licensing because it is cheaper for families.

License Cost: 20 people felt the cost was too high.
1 person felt cost was too low.

- The participant that felt the cost of the license was too low, felt the extra cost could provide funding for hatchery improvements.

License Availability: 8 people complained about the poor license availability.

- Participants would like to see an explanation of the license system, and how it works.

- Posting of license cost.

- Participants would like to see fishing regulations issued with each license. Then people wouldn't be ticketed for unknown closures.

- Provide licenses for various time periods: 1 day, 3 days, 7 days, and 15 days.

- Limit the number of licenses sold.

- Free license for senior citizens.

Fishing Guide Book: 33 participants would like to see a fishing guide book.

- Included in the book: 1) Information on Packages guides

2) Accommodations available and price ranges
3) Good fishing areas
4) Information on Red Tide

Trip in General: 357 participants gave positive feedback regarding their visit to B.C.
18 participants were negative about their visit.

General Costs: 3 people felt cost was generally low.
41 people felt the cost was high, especially the cost of gas.

Accommodations, Campgrounds, and Fishing Facilities: 20 participants commented positively on the facilities.
13 people were negative about the facilities.

- More washrooms are needed. (Campbell River)
- There are not enough campgrounds available.
- Facilities are run down.

Ferry Costs: 7 people felt the ferry cost was too high.

Ferry Service: 8 people felt service was poor.
4 people commented on the good ferry service.

Country: 105 Positive comments on B.C.
1 Negative comment.

People and Hospitality: 66 people felt the people of B.C. were good and hospitable.
8 people were negative towards B.C. hospitality.

General Suggestions:

- More boat launching sites and moorage along the mainland coast.
- More live bait, better fishing supplies, processing and icing facilities.
- Regulate boat sizes.
- Improve customs.
- Make more party boats available.
- Clean up the water.

Proportion Commenting

		% of Surveys with comments	% of all Surveys
Fishing Good	69	7%	5%
Fair	43	4%	3%
Poor	244	25%	16%
Red Tide	35	4%	2%
Commercial Boats and Trollers	44	4%	3%
Guides and Charter Boats	28	3%	2%
License System Positive	3	--	--
Negative	13	1%	1%
License Cost High	20	2%	1%
License Availability Poor	8	1%	1%
Fishing Guide Book	33	3%	2%
Trip in General Positive	357	37%	23%
Negative	18	2%	1%
General Cost Low	3	--	--
High	41	4%	3%
Accommodations Positive	20	2%	1%
Negative	13	1%	1%
High Ferry Cost	7	--	--
Ferry Service Poor	8	1%	1%
Good	4	--	--
Country Positive	105	11%	7%
Negative	1	--	--
People Positive	66	7%	4%
Negative	8	1%	1%